B Shreyas **Bhat**

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Education

Birla Institute of Technology and Science — *Goa, India*

B.E. Electronics and Instrumentation and MSc. Biological Sciences — *Aug. 2019 - Present*

- CGPA - 7.58/10

Experience

Visual Learning and Intelligence Lab, Indian Institute of Technology — *Hyderabad, India*

Research Intern — *June 2021 - present*

- Developing model for Vehicle Re-Identification on VeRi-wild, VehicleX and other datasets
- Supervisor: **Dr. C Krishna Mohan**

LearningMate — *Mumbai, India*

Summer Intern — *May 2021 - present*

- Measuring engagement of studets on VLE platforms and curating a dataset with relevant parameters
- Predicting students at risk of dropping out
- Supervisor: **Dr. Ashutosh Bhatia**

BITS Pilani — *Goa, India*

Student Researcher — *Jan. 2021 - Apr. 2021*

- Implemented MACS-VRPTW ACO algorithm, to find the optimal path to collect and deliver all the patients to closest hospitals
- Collected and created datasets from hospitals neaby Pune
- **[Code] [Report]**
- Supervisor: **Dr. Sumit Biswas**

Projects

Hospital Routing Problem using ACO algorithm — *Multi-Objective Problem*

[GitHub]

- Implemented MACS-VRPTW ACO algorithm, to find the optimal path to collect and deliver all the patients to closest hospitals. Collected and created datasets from hospitals neaby Pune

Brain Tumor Classification — *Computer Vision*

[GitHub]

- Used CNN based models like ResNet101 and InceptionV3 to classify brain tumors on brain MRI image dataset. Further more, used siamese network for one-shot classification using cosine triple loss and l2 triple loss.

Reddit Flair Classification — *Natural Language Processing*

[GitHub]

- A multi-class classification problem which us an LSTM based model and attention mechanism that classifies Reddit posts to its appropriate flairs. Implemented Word2Vec and GloVe algorithm on the dataset for word embedding.

Skills

- **Languages**: Python, C/C++, JavaScript
- **Frameworks**: PyTorch, TensorFlow, Keras, Scikit
- **Tools**: GIT, Linux
- **Libraries**: Matplotlib, Numpy, Pandas
- **Soft Skills**: Leadership, Writing,Time Management

Research Interests

- Computer Vision, Causal Inference, Natural Language Processing, Reinforcement Learning, Computational Neuroscience, Machine Learning Models

Course Work

- **EECS**: Multi-variable Calculus, Differential Calculus, Linear Algebra and Complex Numbers, Computer Programming, Probability and Statistics
- **Biology**: Bioinformatics, Cell Biology, Enzymology, Microbiology, Genetics, Instrumentation Method of Analysis, Biochemistry
- **Humanities**: Ecocriticism, Environmental Development and Climate Change, Urban Renewal and Modernization of Paris
- **Online**: Tensorflow Specialization, Deep-Learning.AI specialization, CS231n Stanford Computer Vision, CS224n Stanford Natural Language Processing, Introduction to Causal Inference, Algorithmic Toolbox

Workshops

NeuroMatch Academy *Remote*

[Website]

- Selected for 15 days workshop on Machine Learning and Computational Neuroscience with people attending all over the world

Committees

Electronics and Robotics Club *BITS-Goa*

Core Member

- Developed Modular robots that change configuration suited to different task using Python and Arduino Nano, ROS and tested on Arduino development board. ModBots also have the ability to link with other robots to form various structures depending on the situation
- **ModBot Code**

Center for Entrepreneurial Leadership *BITS-Goa*

Core Member

- Wrote numerous articles on Finance, startups, entrepreneurship. Helped in organizing various CEL events like coalescence, and other weekly talks

Extra-Curricular Activities

- **Sports**: National level Basketball (U-14) and (U-19), District level Chess, Tennis, Scrabble